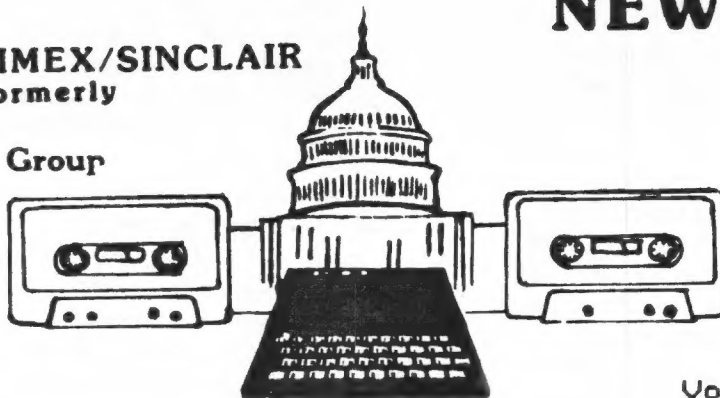


# CATS

CAPITOL AREA TIMEX/SINCLAIR  
USERS GROUP :Formerly  
Prince George's  
Timex/Sinclair User's Group

# NEWSLETTER



Vol 1, No.8  
November, 1983

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## \*\*\*\*\*NEWS FROM THE BOSTON BLOW-OUT\*\*\*\*\*

Hi! from Beantown. Yours truly along with Linda Moran and Mattie Durholz attended the GALA BIRTHDAY CELEBRATION of the Sinclair Users' Group of the Boston Computer Society last week. I really wish you all could have been there to pick up the contagious excitement of Timex/Sinclair Machines, peripherals, software, Historical exhibits and Home-Brewed additions to our great machine. Timex and or Sinclair announced at a pre-show reception the new machines and peripherals that would be coming out shortly. The microdrive is for real. They showed the Sinclair version of the microdrive for the Spectrum and felt they could deliver a U.S. version for all three machines by January or February 1984. The long promised modem was shown with a firm delivery around the first of the year. The hard disc or cartridge for the 2068 were neat little packages. They loaded 100K in 4 sec. The T-dock for the 1500 will allow you to load cartridges as fast on the 1500 and 1000. The tape recorders were a very fine package. You can see them at our next meeting. They spoke of an 80 column printer compatible for the 2068 just after Jan. 1. And best of all, Timex will put out an EPROM to plug into the 2068 loading dock to convert the 2068 into a Spectrum so as to enable the Spectrum programs to run on the 2068. There is an awfull lot of Spectrum Software available. Dan Ross, of Timex, showed some of the future software from Timex such as high resolution graphics for the 2068. In addition, word processing for all three machines. (See WP notice in this issue. You can have WP now for the 1000 and 1500.) There were approximately thirty vendors carrying and showing peripherals for all the machines from about 200 manufacturers. The displays were super. See some of the photos from the show at our meeting. There were seminar/workshops that ran from 10 A.M. to 5:30 P.M. Some of the topics were; Timex in the classroom; The present and future plans for Timex/Sinclair; Business and home applications for the Timex; Using Timex for Biomedical work. Computer literacy seminar-An introduction to Basic; The outs and ins of your own cottage industry; Overview of Word Processors; VuCalc and the Organizer; Demo of Votum and the Hunter Board; program to play Scott Joplins, "Maple Leaf Rag" on the 2068; and last but not least our own Mattie on the Modum Communications Networks. (See her article this issue.) We also had visitors playing

## FROM THE EDITOR

As usual, a lot of things have been happening in the last month. Also as usual, I will probably forget to tell you about half of them - you'll have to bear with me.

You have probably noticed that my wobbly typewriter is gone (actually, it is just taking a rest). WORD Processing has come to the CATS newsletter! A number of word processing - related programs have been included in this month's issue. This column, of course, is being written using WSII, customized for the ProWriter 80 Col printer. On its own, WSII will nearly duplicate this quality of type, driving the 2040 printer, with no hardware add-ons. With a full size keyboard, I am able to type at the same speed I would have on a Selectric. On a club level, we have two more programs for you. John Shaffer has sent in a BASIC text handler, that, judging by the letter he wrote with it, provides a useful way to get your thoughts out to the 2040 printer. At the end of his letter, he invites others to improve on his code: and, coincidentally, Mihaily Grell has just completed a Printer - driver program that generates lower case letters for the 2040 printer: that is also included.

## MEETINGISM

This month's meeting will feature news of new Timex hardware, Steve Johnson speaking on Planning Before You Program, and a presentation on Azimuth is not a Science Fiction Writer. See you there!

In addition, Jules Gesang will have copies of the Wiley Press's Timex Sinclair 1000/1500 BASIC and Timex Sinclair 2068 Quick reference guides, for the first thirty people at the meeting.

## VOLUNTEERISM

In contrast to the participation I've seen in submissions to the newsletter, participation in other areas has been lacking. As mentioned elsewhere, only four surveys were returned; I'm sending out another copy for one last try. Mike Cohen's library project has me beat; he's recieved SEVEN responses. Hey folks, come on!

## LOOKING FORWARD

There has been persistent talk of accepting advertising for the newsletter. This would allow the newsletter to become self supporting. It would also require more effort to produce, at all stages. There are two ways we could go (aside from the way things are now).

1. We could solicit local advertising. This would require additional person-hours in knocking on doors, and tracking the current accounts. On the other hand, the overall size of the publication could remain the same.
2. We could solicit regional accounts, with long term contracts. This would reduce the billing effort, but would require increased size - which requires additional throughput of material. Either alternative involves more volunteers.

That's easy to say, but behind that are two other correlaries; the folks (YOU) have to show up, and we (US) have to work out some way to coordinate our efforts. Right now, CATS (and most other user's groups I've seen) operates on the Feudal system, with a veneer of democracy. The most involved people come forward, and TAKE CHARGE, while the rest are content to share the results, and grumble a little if something seems off. It has some benefits (after all, that's why we've got it); it's quick to set up, provides rewards for those that are persistent in coming forward, and is familiar (standard corporate structure). It has some serious weaknesses, as well; it is equally quick to dissolve, open to abuse by the "warlords" involved, and bypasses the knowledge and initiative of the rank and file.

Do you see where this harangue is leading? I'm one of the "warlords." I make the decisions as to what is included, when it is published, etc. I am in this position not just because I want POWER, but because I don't know how to smoothly involve a group in the production - it's easier just to do it myself. We need to figure out how to turn this around, to build a structure that doesn't hang on one person's efforts. It will be difficult: but if we don't, CATS will vanish, like so many before.

*Mark Fisher*

\*\*\*\*\*  
chess against the computers, donated by Softsync and Timex. One person beat the Timex program in eleven moves and the Softsync in eight moves. Don't have his name but he must be a Pro. We intend having a Chess Match with a Chess program with a voice at a future meeting. Also represented were the publishers and editors of Sync, Timex Sinclair User and Syntax magazines. I think the best display from the standpoint of originality and graphics were Reston Publishing and Compusa. I'll bring you more on the show at the meeting next week. We will discuss a little of what each vendor showed. Lastly, this writer had the good fortune of winning a door prize. It was a Memotext Word Processor donated by Sahid of Memotech. Thanks Sahid. Its a neat item. We'll try and review it next issue. In closing, I want to congratulate SUE MAHONEY Director of the Sinclair Users' Group of BCS for the grand job they did in planning and carrying out the tremendous undertaking and responsibility. It was sincerely a joy seeing all this TIMEX/SINCLAIR under one roof. WHEN AND WHERE DO WE HOLD THE NEXT ONE? It's not too early to start planning.  
Jules Gesang

OCT. 5, 1983  
JOHN M. SHAFFER  
5746 CEDONIA AVE.  
BALTIMORE, MD. 21206

CAPITOL AREA TIMEX-  
SINCLAIR USERS GROUP  
P.O. BOX 725  
BLADENSBURG, MD. 20710

DEAR CO-USERS:

I WANT TO THANK YOU FOR THE  
COMPLIMENTARY COPY OF YOUR NEW-  
SLETTER THAT I RECEIVED IN THE  
MAIL YESTERDAY.

I WAS VERY FAVORABLY IMPRESSED  
BY THE PROFESSIONALISM DISPLAY-  
ED IN SAME. PERHAPS THAT IS NOT  
A HIGH COMPLIMENT IF YOU HAPPEN  
TO BE EMPLOYED IN A RELATED PRO-  
FESSION, IF SO I MUST SAY THAT  
YOU DO IT QUITE WELL.

I AM ENCLOSING THE APPLICATION  
AND A CHECK FOR TEN (VERY HARD  
COME-BY DOLLARS). IN MY ESTIMAT-  
TION IT'S A BARGAIN.

ANY SERVICE THAT I CAN RENDER  
TO THE GROUP SHALL HAVE TO BE  
"IN ABSENTIA". PERHAPS SOME OF  
THE PROGRAMMING THAT I HAVE  
DEVELOPED MAY BE OF INTEREST TO  
OTHERS OF THE GROUP, I WILL  
PASS IT ON.

APPENDED TO THIS LETTER IS THE  
LISTING FOR A COMPACT TYPING  
ROUTINE THAT I CHRISTENED WITH  
THE NAME **TEXTYPE**, NOT SOPHIS-  
TICATED, FOR SURE, BUT A HANDY  
LITTLE UTILITY WHEN USED WITH  
THE 2040 PRINTER.

IN GENERAL, IT GOES AS FOLLOWS:

EACH LINE, AS IT IS TYPED, IS  
MANUALLY ENTERED. (A\$) IS THE  
REGISTER THAT ACCUMULATES EACH  
LINE, PRINTING IT TO SCREEN  
AND HOLDING IT THERE UNTIL SUCH  
TIME AS THE COMMAND TO LPRINT  
IS RECEIVED. **DON'T** LOAD THE SCR-  
EEN, IT LOOKS EVERYTHING UP AND  
CAN ONLY BE STARTED BY BREAKING  
OUT AND RESTARTING. **CUMP** TO THE  
PRINTER WHEN YOU GET TO LINE 20  
OR 21.  
TO LPRINT, SIMPLY TYPE <> UPON  
FIRST OF LINE ENTRY. IF YOU SEE  
AN ERROR IN ANY OF THE SCREEN  
TEXT IT CAN BE CORRECTED BY IN-  
PUTTING **\*\***: BANNER LINE AT TOP  
OF SCREEN. QUERIES "LINE NO.?"  
AT THIS POINT YOU COUNT DOWN  
FROM TOP (EXCLUDING BANNER) THEN  
ENTER THE LINE NUMBER SO DETER-  
MINED. BANNER LINE THEN DECLARES  
"TYPE CORRECTED LINE, PRESS  
<ENTER>". YOU THEN GO BACK TO THE  
TEXT AND CONTINUE.  
THERE IS ONE MORE SMALL SURP-  
RISE CONTAINED IN **TEXTYPE**. IT'S  
CALLED **CARBON**. AFTER EACH PRINT-  
ING FROM SCREEN, A QUERY AT THE  
TOP OF THE SCREEN ASKS: "COPIES"  
"Y" BRINGS THE QUESTION "HOW  
MANY?". TYPE IN THE NUMBER AND  
SET BACK WHILE THE 2040 DOES IT.  
"N" RETURNS YOU TO THE CLEARED  
PAGE FOR MORE TEXT WRITING.

WELL, THAT'S IT. **TEXTYPE** FOR BET-  
TER OR WORSE IT IS USEFUL AND  
NOT TOO CUMBERSOME, PLUS, IT WAS  
A LOT OF FUN FORMATTING IT.  
PERHAPS SOME OTHERS WILL ENJOY  
IT, MAYBE EVEN IMPROVE IT. GOD  
BLESS YOU **GO TO IT.....**

BEST REGARDS

*John M. Shaffer*  
JOHN M. SHAFFER  
NE: JACK SHAFFER

0/0

P.S.  
AS IT STANDS, 16K IS A NECESSITY  
FOR THIS ROUTINE. C\$, THE REPOSI-  
TORY FOR **CARBON**, EATS MEMORY...  
A\$ IS CLEARED AT EACH PRINTING.

```
"LUCK" JACK
1 REM TEXTYPE BY-J.M.SHAFFER
  9/16/83
4 LET C$=""
5 LET N=0
6 CLS
10 DIM A$(22,32)
15 PRINT AT 0,0:"TEXTYPE:LPRIN
16 <>CHANGE LINE++:"
20 LET N=N+1
30 INPUT A$(N)
35 IF LEN A$(N)>32 THEN GOTO 6
40 IF CODE A$(N)=221 THEN GOTO
100
42 IF CODE A$(N)=216 THEN GOTO
200
45 PRINT AT N,0:A$(N)
50 GOTO 20
100 LET N=N-1
102 FOR M=1 TO N
110 LPRINT A$(M)
115 GOSUB 400
120 NEXT M
123 PRINT AT 0,0:"DO YOU WANT E
XTRA COPIES? (Y/N) "
125 IF INKEY$="" THEN GOTO 125
126 IF INKEY$="Y" THEN GOTO 420
130 GOTO 5
200 LET N=N-1
205 PRINT AT 0,0:"?LINE NO. YOU
WISH TO CORRECT???"
210 INPUT 0
220 PRINT AT 0,0:"TYPE CORRECTE
D LINE PRESS<ENTER>:"
230 INPUT B$
240 LET A$(0)=B$
250 PRINT AT 0,0:A$(0).AT 0,0:"
260 PRINT AT 0,0:"TEXTYPE:LPRIN
270 <>CHANGE LINE++:"
290 GOTO 20
400 LET C$=C$+A$(M)
410 RETURN
420 PRINT AT 0,0:"HOW MANY COPI
ES DO YOU WANT?...."
425 INPUT X
430 FOR C=1 TO X
432 LPRINT
433 LPRINT
434 LPRINT
435 LPRINT
436 LPRINT
440 LPRINT C$
450 NEXT C
460 GOTO 15
9000 SAVE "TEXTYPE"
9010 GOTO 4
```

## UPPER / LOWER CASE PRINTING

As was shown in the September Newsletter, you can create high resolution plots on your printer.

By using the same technique, you can create your own character set and use it for lower-case printout.

The following BASIC program gives a demonstration of technique.

Lines 1 through 50 are identical to the original program; copying the PRINT routine out of the ROM. Lines 60 through 150 define the lower case character set taken from the TIMEX 2066 ROM. The characters are represented in hexadecimal, one character per line, and finally stored in `aa`. Your input character string, `ia`, is converted to lower case for codes 38 through 47, while inverse characters do not go through conversion. Finally, the print routine, is given by lines 200 and 250.

If you do not like the characters, modify them to your own liking. You can also introduce special characters (e.g., for lower case o to e).

The MC version is available from the author.

## 5.1.1. General

```

100 REM +* COPY PRINT ROUTINES
101 FOR I=0 TO 112
102 PEEK=01744+I,PEEK (2161+I)
103 NEXT I
104 POK=01800,63
105 POK=01857,201
106 REM +* INPUT CHARACTER SET
107 LET E$=""
108 LET E$=E$+"00003C0023E423E00
109
110 LET E$=E$+"0040407C42427C00
111
112 LET E$=E$+"00003C4040403C00
113
114 LET E$=E$+"0002023E42423E00
115
116 LET E$=E$+"00003C427C403C00
117
118 LET E$=E$+"0000C103810101000
119
120 LET E$=E$+"00003C42423C0023C
121
122 LET E$=E$+"00404078444444400
123
124 LET E$=E$+"0010003010103800
125
126 LET E$=E$+"00040000C04044438
127
128 LET E$=E$+"0020203030282400
129
130 LET E$=E$+"0020202020201800
131
132 LET E$=E$+"0000685454545400
133
134 LET E$=E$+"0000784444444400

```

```

128 LET B$=B$+"0000384444438000
130 LET B$=B$+"00007844444784040
132 LET B$=B$+"00003044444300404
134 LET B$=B$+"0000102020202000
136 LET B$=B$+"00003040380478000
138 LET B$=B$+"0020702020201800
140 LET B$=B$+"00004444444443800
142 LET B$=B$+"0000444428281000
144 LET B$=B$+"0000545454542800
146 LET B$=B$+"0000442810284400
148 LET B$=B$+"000042424280280
150 LET B$=B$+"0000700810207000

600 LET A$=""
610 FOR I=1 TO LEN B$/2
620 LET A=CODE (B$(2*I-1))*16+C
CODE B$(2*I)-478
630 LET A$=A$+CHR$ A
640 NEXT I
650 LET L=0
660 REM ** PRINT ROUTINE
670 INPUT T$
680 GOSUB 1100
690 LET T=LEN T$
700 FOR J=1 TO 32
710 FOR K=1 TO 8
720 IF J=1 THEN GOTO 890
730 LET IND=CODE (T$(J))+8+K-32
740 IF IND>=721 THEN GOTO 910
750 IF CODE T$(J) (38 THEN GOTO
930
760 POKE 32255+K+8*(J-1),CODE A
$(IND)
770 GOTO 840
780 POKE 32255+K+8*(J-1),0
790 GOTO 840
800 POKE 32255+K+8*(J-1),PEEK (
60000+IND)
810 GOTO 840
820 POKE 32255+K+8*(J-1),PEEK (
70000+IND)
830 NEXT K
840 NEXT J
850 FOR H=0 TO 31
860 POKE 16444+H,H
870 NEXT H
880 RAND USR 31744
890 GOTO 600
9000
9100 REM ** DISPLAY ROUTINE
9110 IF L>20 THEN SCROLL
9120 LET L=L+1
9130 IF L=20 THEN PRINT T$
9140 IF L>20 THEN PRINT AT 20,3,
T$
9150 RETURN

```

OTOTOIOIOIOIOIOIOIOIOIOIOIOIOIOIOIOIOIOIO

**Invitation from SYNC**  
Paul Grosjean, of SYNC, is searching for articles on uses for the T/S computer on the job. They can be either longer articles (up to 12 pages) or one page brief reports. I have a copy of Writing for SYNC that I will be pleased to share if you want to take Paul up on his offer.  
P.S. Don't forget to send a copy of your article to the Newsletter. MF



\*\*\*\*\*

## MASSIVE TURNOUT SWAMPS EDITOR

Well, the membership has spoken: the questionnaires that were published in last month's newsletter have been pouring in. Literally pairs of responses have swamped the data processing capacity of my pet turtle - he's still chewing on the first one, and there's three more awaiting his attentions.

Seriously, folks, I need to know what you want to see, both in the newsletter, and in the meetings. There has been a lot of response to John Conger's presentation - I would like to hear suggestions for others. I've learned my lesson; I'm not going to ask you to tell me what you are interested in - but don't get surprised if I get bored with guessing, and do something else (golf?).

I do not want to detract from the efforts of those that have contributed to this newsletter. Their contributions have been the lifeblood of the publication, and I am sure that they will continue.

## RESPONSES

4 Q's returned.

Equipment: 4 T/S 1000's, 5 16K memories, 2 large Keyboards, 1 printer, 1 modem, 1 VIC 20.

Background: All Beginner 4 (!)

Here because: To learn Basic; 2: To learn M/C; 2: To meet others; 3: To see new stuff; 4: 2 Other (with useful notes; thank you)

What kind of club is wanted? Most helpful; 4: Most friendly; 2

Change the meetings? 1 No Change, 1 add Q&A time,

2 More Demos, etc. (so what hardware do you have  
Change the Newsletter? 1 No Change, 1 More tutorials, 1 More reviews (so write them)

What will you do to help? 1 Nothing (honest, at least, and he did return a form) 1 help on committees if called, 1 open, 1 help on newsletter  
Serve on committees: 1 for inter-club comm.

That's it. If you want to stand up and be counted, send in a copy of the form, and I'll tabulate your response as well.

MF

\*\*\*\*\*

## VU-CALC CLASS

On Saturday, Oct 22, John Conger conducted a tutorial session covering the program Vu-Calc. He spoke to some 15 motivated listeners at the New Carrollton library. In an obviously well-prepared discourse, supplemented by the first draft of a manual he is in the process of developing, John performed what might be considered a miracle in leading us through the intricacies of an involved and baffling maze of detail and subtlety.

The three hour period proved insufficient to allow for a complete presentation; perhaps John could be prevailed upon to add another session--after all of us have had a chance to digest and apply all the material gathered in this first. For my part, I've finally learned what a spreadsheet is, and now have an understanding (with much more to learn) about Vu-Calc.

In view of the interest displayed by this group, I would like to suggest that similar sessions be conducted, covering some of the other complicated programs available for the Timex/Sinclair computers.

Thanks again for a job well done.

S.E. Fellerman

## VU-CALC HANDBOOK

on the Timex spreadsheet program and its use, by CATS member John Conger, is available. It amounts to about 20 pages Xeroxed, with templates and exercises. It demonstrates various formula techniques that make the electronic spreadsheet a versatile and powerful tool, for business or finance. It substitutes for the inadequate documentation that comes with the cassette. As used in the Vu-Calc seminar of Oct 22, an updated and expanded version is \$5.00 postpaid. Send cash or check to

John Conger

4814 Grantham Ave.

Chevy Chase MD 20815

Phone 654-5751

Corrections to Vu-Calc handbook:

For those that bought the handbook at the seminar, enter the following corrections: P7, 7 lines from bottom; C-COLUMN should replace C-CALCULATE: P8, 4th line from top: Change C03 to C02 J.C.

Sarah Fisher

Jules Gesang

Mihaly Grell

John M. Shaffer

Lloyd Unsell

Rick White

Maryland Book Exchange

## THANKS FOR YOUR \*\*\*\*\* CONTRIBUTION:

Ned Beeler

John Conger

Hank Dickson

Maddi Durholz

S.E. Fellerman

## SUE MAHONEY: A LOVE OF COMPUTERS

Today she was in New York City, talking to vendors, lecturers and media representatives at a computer convention, recruiting people to participate and attend a computer show (the Timex Sinclair Celebration) she is organizing this Saturday at the Boston Park Plaza Hotel. Tomorrow, somewhere around seven o'clock, the pace will start again - the phone calls, the letter writing, perhaps a trip to Boston in the afternoon. It is hectic, heart-racing work, and for Waterbury's Sue Mahoney, a job based on a dream.

Her vision - to bring together people and products, to put the personal back into "personal computers," specifically, in this instance, the Timex Sinclair line. Saturday's convention, which she is organizing for the Boston Computer Society in celebration of the second anniversary of its Timex Sinclair user group, will couple "the manufacturer, third party vendors of supporting services and products (software, etc.), enthusiastic users and prospective buyers.

It is an idea she's kicked around for a while. She first started working on the project while employed by the Lewis Sinclair Corporation in 1981, but the project got scrapped. Earlier this year, while employed as manager of Technical Support for the Waterbury-based Timex Computer Corporation, she revived the project, writing a prospectus for her employer's analysis.

But before she was able to do much about it, she became a victim of one of Timex's recent layoffs.

"The day I was told I was laid off, was the day I told my boss and all the people above him that I was going on with the convention on my own. One of the reasons I decided to do the show is I got sick and tired of people saying, "What can you do with a personal computer?" I knew people had computers just sitting on the shelf and I wanted to draw these people in."

When she decided to do the show, Ms. Mahoney first approached Timex for seed money to get the ball rolling, but the company, she says, wasn't able to budget the show. She searched around for another backer, and finally, received a loan from Reston Publishing Company, a division of Prentice-Hall. "they apparently believed in the concept enough to give us the money to get us going." From then on, it was a point of "getting on the phone and keep calling all different companies to explain the concept."

And, come 6PM Saturday (Oct. 22, 1983), it will be all over. And Sue Mahoney will be out of a job. "I'm not sure how this will all unfold. The market is so volatile. Where am I going to fit in on this whole scene? My mission, since I started working in the computer field in 1979, has been to help



people understand computers better; but whatever happens, I know it will work out," she smiles.

condensed from The Waterbury Republican American, Oct. 18, 1983

## MORE ON THE IMPROVED SCROLL FUNCTION

BY RICK WHITE

THE IMPROVED SCROLL FUNCTION, BY KEN BROWN, WORKS RATHER NICELY DOESN'T IT? YOU HAVEN'T TRIED IT YET? TAKE A LOOK AT THE MAY NEWSLETTER FOR FULL DETAILS.

THE PROGRAM USED TO LOAD THE MACHINE CODE IS REPEATED HERE:

```
1 REM 1234567890123456789012
10 LET K=0
20 FOR I=16514 TO 16514+21
30 INPUT J
40 POKE I,J
50 PRINT TAB K;J
60 LET K=K+4
70 NEXT I
```

AND THE DATA YOU SHOULD ENTER (LEFT TO RIGHT ACROSS EACH ROW) WHEN RUNNING THE ABOVE PROGRAM TO ENTER THE MACHINE CODE:

42	12	64	35	84	90	1	33
0	0	1	214	0	237	175	1
0	21	205	245	6	201		

THE ASSEMBLY LANGUAGE VERSION WHICH WAS PREVIOUSLY LISTED WAS IN ERROR. THIS IS THE CORRECT VERSION, WITH THE CORRECT HEX CODE.

HEX	ASSEMBLY
2A0C40	LD HL, (+16396)
23	INC HL
54	LD D, H
5D	LD E, L
012100	LD BC, +33
09	ADD HL, BC
01D602	LD BC, +726
EDB0	LDIR
010015	LD BC, +5376
0DF508	CALL +2293
C9	RET

TWO IMPORTANT LINES WERE OMITTED FROM THE ORIGINAL LISTING:

```
LD BC, +5376
CALL +2293
```

THE "CALL +2293" COMMAND JUMPS TO A ROUTINE IN THE ROM WHICH RESETS THE PRINT POSITION TO THE VALUES OF THE B AND C REGISTERS. THE B AND C REGISTERS ARE LOADED WITH THE VALUES OF THE 18TH AND 17TH BYTES OF THE MACHINE CODE; HENCE THE PRINT POSITION 21,0 AS IN THE BASIC SCROLL.

WITH THIS INFORMATION, DIFFERENT SCROLLS CAN BE CREATED, SUCH AS A HALF-SCREEN SCROLL (YOU MAY HAVE A USE FOR THIS SOMEDAY).

YOU CAN ALTER THE PRINT POSITION BY THESE POKES:

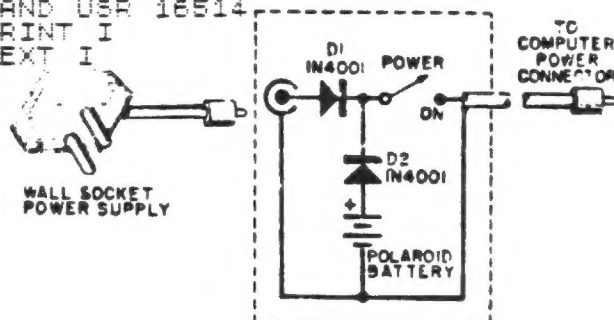
```
POKE 16530, COLUMN NUMBER
POKE 16531, LINE NUMBER
```

THEN CALL THE SCROLL ROUTINE, AS BEFORE, WITH:

```
RAND USR 16514
```

THIS ACCOMPLISHES THE SAME EFFECT AS THE BASIC COMMANDS "SCROLL" AND "PRINT AT", BUT THIS MAY GIVE YOU AN IDEA OF HOW TO INCORPORATE DIFFERENT SCROLLS INTO THE IMPROVED VERSION. THE FOLLOWING PROGRAM MAY HELP YOU TO EXPERIMENT WITH DIFFERENT PRINT POSITIONS. DELETE LINES 10 THRU 70, THEN ENTER THE EXTRA LINES, LEAVING LINE 1 INTACT.

```
1 REM E&RND777 5 CHR$ "GOS
UB LN PRINT TAN
10 PRINT AT 0,0;"LINE?"
20 INPUT I
30 POKE 16531,I
40 PRINT AT 0,0;"COLUMN?"
50 INPUT I
60 POKE 16530,I
70 FOR I=1 TO 100
80 RAND USR 16514
90 PRINT I
100 NEXT I
```



## A "TRULY PORTABLE" SINCLAIR/TIMEX by Les Solomon, from August '83 Computers & Electronics

Wouldn't it be nice to be able to enter a program in your Sinclair/Timex computer and, when you remove the AC power, have the program remain in memory?

Even (if) you are not interested in portability, the circuit to be discussed adds one other very useful feature - it provides an **uninterruptable power supply** that maintains the computer's data integrity if it is connected to the wall socket and commercial power fails.

The circuit (Fig.1) is a basic diode switcher. When the power supply is delivering a voltage higher than that of the battery, silicon diode D1 is forward-biased (acts like a closed switch), while silicon diode D2 is reverse-biased (acts like an open switch). This effectively isolates the battery from the system. If the line-operated supply is removed, D2 becomes forward-biased, D1 becomes reverse-biased, and the battery supplies power to the computer.

Now, which battery to use? A conventional 9V transistor battery will run a minimum computer, but it will soon run down to 7V - a waste of power. (The 6V battery which comes in a Polaroid film pack works quite well - and it is free.)

The two diodes, the battery, and the POWER switch were fitted together and covered with electrical tape. A connector was interfaced to a plug at the end of the wall-supply, and a cable terminated with a plug connects the package with the computer's power input receptacle.

The package can be mounted to the computer, with the output cable plugged into the computer. When the wall supply is plugged into the package and the POWER switch turned on, the system works as normal. When the supply is not operating, the battery runs the system. When the battery runs down, slit the tape and wire in a new battery.



## ANATOMY of a PROGRAM LINE

Program listings on the T/S computer are available on command. With either LIST or LLIST, the program in the machine is displayed for you, to study or change. But not everything in the machine's program file is displayed!

There are three elements of the file that are censored from the LISTings you see; I'll get to them in a moment. But ignorance is bliss, you say. To an extent, you're right. For most programming chores, understanding the structure of the T/S's program file is unnecessary. There are times, however, when you may want to work with the program file itself - line renumbering, or when trying to save space for example - and these times, knowledge of the structure is important.

### Computer Structure

This paper is a tool for holding information. The shapes written on it (letters) mean different things as they are combined (words, and sentences). The computer is also a tool for holding information; but it is built in a different way. There are two main differences: 1. it holds binary numbers only, and 2. it is linear, like a string of beads, rather than two dimensional, as this paper is. For the convenience of the human users, both of these attributes have been "covered up." You can communicate with the machine using letters and decimal numbers, and receive its replies in the same way, but the machine is doing a lot of extra work to accomodate you. When we look at the structure of the computer, though, we must keep those differences in mind.

### Mechanics

The computer stores numbers in a long string. Each number, in reality, is a collection of 32 transistors, formed into eight switches, or bits. These eight bits together are called a byte. As it happens, eight switches can be arranged in 256 different ways, from 00000000, 00000001, 00000010,... to 11111111. We can think of each arrangement as a number, between 0 and 255. Each of these eight bit numbers has a fixed position in the string of numbers; these positions are called addresses. Not all addresses have switches presently attached - it's a little like a new Levittown, with empty streets stretching off into the distance. In the basic T/S 1000, only the addresses from 0 to 8192, and from 16384 to 18432 are used, while the machine could work with addresses up to 65536! The sample program we will look at today will be stored between 16509 and 16607.

Here's the program:

```
10 REM SAMPLE PROGRAM, NO. 1
20 FOR N=16509 TO 16606
30 SCROLL
40 LPRINT N; " "; PEEK N; TAB 10;
CHR$ PEEK N
50 NEXT N
```

You may want to change LPRINT to PRINT after you have RUN it once. Otherwise type it in exactly as written - the success of your future pokes depends on it. This program uses two features of BASIC to help us examine the machine's memory: PEEK and CHR\$. PEEK, followed by an address, will give us the decimal value of the number at that address. There is a companion command to PEEK, that lets us change the value stored in RAM; that is POKE. We'll use it in this tutorial as well. The machine can interpret that number in several ways (as text, as a binary number, or as machine code) and we can use CHR\$ to command the machine to translate the number into text. &

### Tokens

Run the program. "Wait!" you say, "each address is supposed to hold one number, and some seem to hold whole words." What you're seeing are tokens. When the machine translates it's memory into text, some numbers are assigned whole words, rather than individual characters. You can see a list of all the tokens in the character list in the back of your User's Manual.

### The Powerful 118

The next thing you notice is that the nice, neat program lines are gone; the numbers run along without an apparent break. There are two kinds of breaks there though, one of which you haven't even known about. 118 is the end of line marker; note how each line of the program has a 118 to conclude it (each line of the screen display has one also, but that's a subject for another month). When the LIST routine is drawing the program to the screen, it uses the 118 markers to signal the end of a line. We can have some fun with that - enter POKE 16520,118 and ENTER. The LIST routine now thinks that the REM is in two parts! The program will still run; the machine uses a different method of keeping things straight as it RUNs. Now try POKE 16521,118 and ENTER. List the program - where did it go? It's still there; try RUN to prove it. The LIST routine interprets two 118's together as the end of the program file. If you want to see the rest of the program again, POKE 16520,0 and 16521,0.

### The Silent 126

The machine has another flag hidden in the listing. RUN the program again, and watch the LISTing of line 20 (addresses 16536 to 16566). The number 16509 appears, starting at 16543. There are the character codes for 1, 6, 5, 0, and 9 - but then there are six bytes of garbage before you get to the "to". The 126 tells the computer that a five byte binary number follows. This number is inserted after each decimal number you include in your program line, as the line is copied from the bottom of the screen into the program area. When you press EDIT, these numbers are stripped out. Try POKE 16520,126. LIST now thinks that the letters "PROGR" are a binary number, and hides them from you.



They're still there - RUN the program again to prove it. Now LIST it again, and pull line 10 down with EDIT. It looks the same as in the listing, but "PROGR" has been deleted now. Press ENTER to replace it, and RUN to prove it. This will happen to machine code, if it happens to contain a 126 (which, unfortunately, is a very important command) and is pulled down with EDIT.

Try POKE 16548,0 and LIST. This will remove the 126 from behind the decimal number 16509, and LIST will provide the CHR\$ for the five following bytes, rather than skipping them as it normally does. Sometimes, a bad load will change a 126 to something else, and the program will not operate correctly. The symptom, of course, is six characters of garbage following a good number in the LISTing. If you like, you can then add a program such as the one given here, and identify the address of the missing 126, then replace it with a POKE.

#### More Anatomy Line numbers...

There are two more "structures" that help the machine navigate through the program file. The first is the Line number. This is stored in an almost logical way. Remember that the largest number that an address can hold is 255. How would it hold a line number larger than that? Let's see. EDIT line 50, and change its line number to 300, and RUN. The line number for that line is held at addresses 16601 and 16602. The computer has taken the line number(300), and seen how many 256's would go in (one), then put the remainder in the next address. Try POKEing 16601,10, and LIST. The first number now represents 2560, and the remainder from before is added in, making 2604.

#### And Line length.

There are two more bytes to account for. These are extremely important for the machine, as they tell the computer how long the present line is, and thus, how many addresses to move to get to the next line. RUN, and look at line 10. Address 16511 holds 23. Now start at the first byte of the text of the line (16513), and count down 23 - there's the 118 at the end! Many computers only allow lines of less than 256 characters (can you guess why?), but the T/S machines support lines of essentially any length. If the length is greater than 255, the same operation as the line number is performed, with one byte getting the number of 256's in th length, and the other getting the remainder. One catch - the two bytes are in reverse order, to speed the 280's handling of the numbers.

Now you have seen part of the machine's structure that was hidden before. Like a sleek car, it sometimes pays to lift the hood, and appreciate the effort that went into the works under there, as well.

Good Luck !

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```

DO YOU HAVE A PRE-SCHOOLER,  
KINDERGARTNER OR FIRST GRADER  
THAT IS HAVING PROBLEMS WITH  
SIMPLE ADDITION AND SUBTRACTIONS?

WE ALL KNOW THAT WHAT THEY NEED  
IS PRACTICE, PRACTICE, PRACTICE-  
AND THIS PROGRAM SHOULD GIVE IT  
TO THEM. IT SPEAKS IN THE TERMS  
THEY WILL HAVE IN SCHOOL-"PLUS",  
AND "TAKE-AWAY". IN ADDITION,  
IT GRAPHICALLY SHOWS SQUARES  
WHICH MAY BE COUNTED TO GET THE  
ANSWER. IN SUBTRACTION, IT  
SHOWS THE SQUARES "REMOVED"  
(GRAY RATHER THAN BLACK), SO  
THE ANSWER IS MORE OBVIOUS FOR  
YOUNG MINDS. MY FIRST GRADER  
LOVES IT AND I THINK YOUR KIDS  
WILL TOO.

TYPE THE PROGRAM AS LISTED AND  
ENTER "GOTO 190" TO SAVE THE  
PROGRAM WILL RUN AUTOMATICALLY  
WHEN LOADED. A CORRECT ANSWER  
IS REWARDED WITH A FLASHING  
"THAT IS CORRECT" AND WRONG  
ANSWERS MAY BE CORRECTED. ALL  
ANSWERS ARE BETWEEN 1 AND 9,  
HOWEVER, LINE 31 MAY BE DELETED  
TO ACQUIRE ADDITION ANSWERS FROM  
1 TO 18. TO LOAD, ENTER:  
LOAD "PSMATH"

HOPE YOU (AND YOU KIDS) ENJOY IT

SAMPLE SCREEN FORMAT:

**TAKE AWAY QUESTION: 5**

LLOYD, JEFFREY IS:

**TAKE AWAY**

THAT IS CORRECT

PROGRAM TAKES 1216 BYTES.....

```
000006 CALLP      B=AM "BOMATI"-BY L.UNSELL  
          LAT=N=CONTH  
          LAT=Y=NOTENH  
          PRINT "ZDMH?"  
          INPUT N#"  
          PRINT "ROG(A) TAKE-AWAY IT"  
          MIX-UP "M)"  
          INPUT D#
```

```

10 IF A$="A" THEN LET E=Y
11 IF A$="T" THEN LET E=Z
15 GOSUB VAL "100"
16 LET X=Y
18 FOR Q=Z TO VAL "10"
19 CLS
20 IF A$="M" THEN LET E=INT (R
ND*(Z+Z))
21 IF E=Y THEN PRINT "ADD "
22 IF E=Z THEN PRINT "TAKE AW
"
24 PRINT "QUESTION: ";Q
25 LET A=VAL "INT (RND*9)+Z"
30 LET B=VAL "INT (RND*9)+Z"
31 IF E=Y AND A+B>VAL "9" THEN
GOTO VAL "25"
32 IF E=Z AND B+Z>A THEN GOTO
VAL "25"
33 PRINT AT Z+Z,Y;N$); " WHAT I
S:
34 FOR D=Y TO A-Z
35 IF E=Y THEN PRINT AT PI+Z,D
*INT PI;"(AT PI+Z+Z,D*INT PI;"
36 IF E=Z AND D+Z<=B THEN PRIN
T AT PI+Z,D*INT PI;"(AT PI+Z+
Z,D*INT PI;"
37 IF E=Z AND D+Z>B THEN PRINT
AT PI+Z,D*INT PI;"(AT PI+Z+Z
,D*INT PI;"
38 NEXT D
39 PRINT AT 5,(A-Z)*INT PI+INT
PI;"A
40 IF E=Y THEN PRINT AT 8,INT
PI;"PLUS
43 IF E=Z THEN PRINT AT 8,INT
PI;"TAKE AWAY"
44 FOR D=Y TO B-Z
45 PRINT AT 11,D*INT PI;"(A
T 10,D*INT PI;"
46 NEXT D
47 PRINT AT 12,(B-Z)*INT PI+IN
T PI;"B
50 INPUT C
55 PRINT AT 15,Y);"
56 IF E=Y AND C<>A+B THEN GOTO
VAL "60"
58 IF E=Z AND C<>A-B THEN GOTO
VAL "60"
59 GOTO VAL "60"
60 PRINT AT 16,Y);" THAT IS WRO
NG. TRY AGAIN.
62 LET X=X+Z
65 GOTO VAL "50"
68 FOR I=Z TO LEN STR$ PI
69 PRINT AT 16,Y);"THAT IS CORR
ECT"
84 PRINT AT 16,Y);"THAT IS CORR
ECT"
86 NEXT I
87 GOSUB 100
88 NEXT Q
90 GOTO VAL "100"
100 FOR I=Z TO CODE "C"
105 NEXT I
110 RETURN
120 CLS
121 PRINT "YOU GOT ";Q-X); " RIGH
T ON THE FIRST TRY."
125 PRINT "TRY AGAIN?(Y/N)"
130 INPUT J$
135 IF Q$="NO" THEN STOP
140 IF Q$="Y" THEN GOTO VAL "60"
145 GOTO "FORMAT"
150 RUN

```

## TELECOMMUNICATING WITH YOUR TIMEX

by Maddi Durholz

By adding a modem and RS232 serial interface to a TS1000 or TS1500 (later the TS2068) anyone can easily, via telephone, "talk with" or retrieve data from nationwide information data banks (CompuServe, The Source, Dow Jones), online "libraries" (Knowledge Index, After Dark), national and local free bulletin boards (several in the D.C. area), electronic mail, banking, shopping, bartering and conference services, and special interest groups (ham radio, pets, music, aircraft, soap operas, commuters - you name it). Charges for some are based upon the low evening/night rates of special telephone networks (CIS, Telenet, Tymnet, Uninet) and non-prime time usage of the data systems. Others are toll free to local bulletin boards and Timex and non-Timex computers.

I feel my Byte-Back MD-2 modem with its built-in RS232 interface is inexpensive, easy to use and reliable. (All problems with the MD-1 have been corrected.) Completely assembled and tested for \$150, or in kit form for about \$30 less, and not much larger than a rumpack, it is similarly attached and may be used with or without 16K or 64K of memory. Instructions for adding a TS2040 printer or 50 column printer (serial type needs modifications - directions supplied), and use of the cassette terminal software are supplied and clear. Byte-Back's evening customer support is superb.

My TS1000 becomes a "dumb" or "smart" terminal depending on which of the two furnished software programs is loaded into memory. The "Z2" program allows for simple video interaction with the dialed up system but can also print output by copying the screen or by semi-simultaneous printing of incoming data. The "Z16" smart program does the same but also allows incoming data (text, programs or variables) not only to be saved (60 screens with 64K) or downloaded to memory but sending yours (uploading) to remote computer storage, to other Timex's or even to non-Timex computers. I understand that the Memotech and Timex modems may not offer these "smart" features. Right now I access only CompuServe and Knowledge Index, and dial the local number for the appropriate network, flipping the modem switch at the tone and hang up. The network prompts me quickly until I enter my account number and password and am logged on.

CompuServe is really two systems in one. The first is a personal computing area (Mic-

ronet) which, among others, provides each customer with their own 128K for storing and retrieving their's or someone else's programs. Byte-Back's "smart" software even allows an exit to BASIC to examine, modify and then reload to CompuServe without logging off! Other features include electronic mail, wordprocessing, bulletin boards, user groups, conferencing, computer CB simulation, free software and games. The second, called a display area (Videotex) offers, for example, an online encyclopedia, business, weather (see Fig. 1) and sports news, electronic magazines and newspapers (like Washington Post), travel planning, buying, bartering, personal financial and investment planning, program language tutorials, humor, hardware and software reviews, and the wire services. Password and manual may be available for as little as \$19.95. The all-inclusive hourly rate is only \$6.00.

Knowledge Index (KI) could be described as a "library" no further away than your Timex and which is often faster and more precise to use than a library. About 20 resources (data bases) are available on KI which cover all fields of knowledge: for example, law, medicine and pharmaceuticals, business, management, psychology, agriculture, engineering, computers and electronics. Newspaper and magazine coverage, government publications, Standard & Poor's data and Boal's data are offered. KI output may be referred to back or forwards, reviews, or actual data. Detailed output may be ordered (see line 1 of 3) or last or earlier documents may be selected (see Fig. 4). The abstracts are often sufficient but entire articles may be ordered online. Both CompuServe and KI allow Timex parameters, e.g., 31 character screen width, to be treated as well as flexible displays and online hard copy printing. I recommend accessing KI with Telenet as it allows for single spaced printed output. Since KI (and After Dark) are professionally derived data systems, they cost more than CompuServe to access (\$15-\$24 an hour) but are worth it if you have a need since the average search takes 5 to 10 minutes.

If you'd like more information on telecommunications or what services and systems are available, I urge you to purchase The Complete Handbook of Personal Computer Communications by Alfred C. Brenner, St. Martin's Press, 1983, \$24.95. It is readable, comprehensive, well organized, detailed and has not dated yet!



# TELECOMMUNICATING WITH YOUR TIMEX (CONT.)

Figure 1.

COMPUSE RUE PAGE HOM-10

## NEWS/WEATHER/SPORTS

### NEWS SERVICES

- 1 THE WASHINGTON POST (\$)
- 2 ST. LOUIS POST-DISPATCH
- 3 AP VIEWDATA LIRE

- 4 NOAA WEATHER LIRE
- 5 OFFICIAL PGA TOUR GUIDE
- 6 HOLLYWOOD HOTLINE (\$)
- 7 INDICATES SURCHARGED SERVICE

LAST MENU PAGE, KEY DIGIT  
011 FOR PREVIOUS MENU.

STATE PAGE WX-3

- 1 STATE FORECASTS
- 2 EXTENDED FORECASTS
- 3 FORECAST EXPLANATION
- 4 PROBABILITY OF PRECIP.
- 5 MARINE FORECASTS
- 6 SPORTS FORECASTS
- 7 WEATHER WARNINGS
- 8 AVIATION WEATHER MENU

SECTION 1  
011 FOR POSTS

ENTER IDENTIFIERS  
011 FOR HELP

STATE FORECASTS (FF) GIVE THE  
24-HOUR OUTLOOK FOR EACH  
STATE IN ENGLISH. REPORTS  
ARE FILED AND RETRIEVABLE BY  
MAJOR CITY CODE, OR YOU MAY  
USE 2-LETTER STATE ABBREVIATIONS

LAZ/DC/... TYPE "LIST"  
AT THE "ID:" PROMPT TO SEE ALL  
REPORTING LOCATIONS.

ENTER FOR NEXT PAGE: LIST  
000 ABO ALE ARE ATL BHM BIS BOI  
BOM BUF CAG CHI CLE CRW CYS DEN  
DSM FLL FTW GTF HNL IND JAN LA  
LBB LIT MEM MIA MKE MSP NEW NYC  
OKC OMA PDX PHL PHX PIT PUM RDU

000 BND BAT BDF SEA SFO SLC STL  
TOL VEG  
011

ABC 010800

DO AND VICINITY FORECAST  
NATIONAL WEATHER SERVICE WASHIN  
GTON DC

4 30 AM EDT SAT OCT 1 1983

DC01-DO AND VICINITY  
4 30 AM EDT SAT OCT 1 1983

TODAY...VARIABLE CLOUDINESS V1  
TH A 10 PERCENT CHANCE OF  
A SHOWER. HIGHS AROUND 75.  
TONIGHT...PARTLY CLOUDY. LOWS  
AROUND 55 IN THE SUBURBS  
TO AROUND 60 DOWNTOWN.  
SUNDAY...PARTLY SUNNY AND A LI

ITTLE WARMER. HIGHS AROUND  
80.

Figure 2.

TIMEX SHOWS COLOR COMPUTE-  
WITH 48K RAM FOR UNDER \$200  
NAME: SCOTT  
INFOWORLD, JAN 31 1983  
NE P16-18, 2 PAGES 153  
0109-8649  
LANGUAGES: ENGLISH  
DOCUMENT TYPE: ARTICLE  
GEOGRAPHIC LOCATION: UNITED  
STATES  
REPORTS THAT TIMEX HAS  
INTRODUCED ITS NEW COLOR  
COMPUTER WHICH HAS 48K RAM.  
TIMEX SINCLAIR 2000 (\$199.95)  
IS A MODIFIED VERSION OF  
OUR RESEARCHER SPECTRA  
WHICH HAS BEEN  
MODIFIED TO RUN ON THE  
SINCLAIR 2000 AND CANADA.  
DESCRIPTORS: \*PRODUCT ANNUN-  
CIATION; \*MICROCOMPUTER SYSTEM  
\*TIMEX SINCLAIR 2000  
IDENTIFIERS: TIMEX SINCLAIR  
2040, TIMEX COMPUTER CORP.

Figure 3.

GRAPHICS 6 PACK  
SOFTSYND INC  
14 E 34TH STREET  
NEW YORK, NY 10016  
212-685-2080  
TERMS: MO, CHECK, MC VISA  
40 DEALER DISCOUNT  
TIMEX SINCLAIR  
75-1000/CASSETTE/1K 14.95\$ 14.-  
95\$  
BASIC/CASSETTE/1K 14.95\$ 14.-  
95\$  
COUNTRY OF CURRENCY: USA  
LANGUAGE: BASIC SOURCE CODE  
AVAILABLE: NO  
INTEGRATED PACKAGING: NO  
UPDATES: NO  
DATE OF RELEASE 821000  
WARRANTY: YES  
THESE SIX GAMES FIT INTO A 2-  
SINCLAIR ZX81 OR A 2K TIMEX  
1000. THE GAMES ARE TWIL  
INVADERS, DEFEND ALIEN  
INVADER, WINDING STAIRWA  
ASTRO DODGER AND CROSS THE  
ROAD. COMPLETE INSTRUCTIONS  
HOW TO UPGRADE AND MODIFY THE  
GAMES ARE INCLUDED.  
438 PERSONAL/GAMES

Figure 4.

CHECKS, INCOME TAX, AND  
BUDGET OR ANNUAL  
FINANCING LTD  
PO BOX 25  
NEWTON NO 2865  
TIMEX SINCLAIR  
ZX81 CASSETTE 15.00\$ 15.00\$  
COUNTRY OF CURRENCY: USA  
SOURCE CODE AVAILABLE: NO  
INTEGRATED PACKAGING: NO  
UPDATES: NO  
WARRANTY: YES

# CATS Membership survey

Equipment owned: T/S 1000 16k 32k 64k Add on ROM board       
quantity 2040 Printer      Other Printer      Modem      Large keyboard       
 Joystick      Disk& controller     

Other       
 Tapes; homegrown      from magazines      commercial     

Background: Beginner 1 (where do all these plugs go ?)       
 Beginner 2 (how do you code a FOR-NEXT loop ?)       
 Beginner 3 (my programs work, but no one can read them)       
 Beginner 4 (what's a LDIR command ?)       
 Beginner 5 (why can't this machine have a decent i/o structure like my VAX ? )     

Why are you with us ? To learn BASIC      To learn machine code      To meet others that are working on this machine      To learn about new equipment      To learn about new programs       
 (more than one answer is OK ) To learn how to use commercial programs     

Other     

What kind of club do you want ? The biggest on the East Coast       
 The most helpful on the East Coast       
 The friendliest on the East Coast     

Other     

How would you change the meetings They're perfect      More product demo's      More program demo's      More info for beginners      More info for advanced      Separate small interest groups (sig's)       
 More time to talk to those around me      More tutorials     

Other     

How would you change the newsletter ? It's perfect      More general articles      More program reviews      More book reviews      More hardware reviews       
 More tutorials      News from other clubs      Advertising       
 Program mods       
 Other     

WHAT WILL YOU DO TO ACHIEVE THE ABOVE ? Nothing      Help on committees if called      Write for the newsletter      Volunteer for committees      Start committees       
 Coordinate committees       
 Other     

Potential committees: BASIC Education      M/C Education      Newsletter       
 Library      Inter-club communication      News1. Advertising       
 (and exist\* Publicity      MEETING PLANNING      Membership      Contests       
 ing ones)

.....  
 SKILL LEVEL Name & Address, if you would like to help.

Yours 0..1..2..3..4..5..6..7..8..9       
 Meetings 0..1..2..3..4..5..6..7..8..9       
 Newsletter 0..1..2..3..4..5..6..7..8..9

# YOU CAN BELIEVE YOUR EYES!

## WORD PROCESSING for the TIMEX / SINCLAIR COMPUTER

UPPER & lower Case - with

### NO HARDWARE ADD-ONS!

#### WORD SINC II+

WORD SINC II+ is a smooth, full feature word processor that will transform your computer (ZX81, T/S 1000, or T/S1500) and printer (ZX or Timex 2040 into a real word processing system.

#### WORD SINC II+ OFFERS:

42 characters per line on the standard Timex printer.

FULL character set, with all punctuation (see chart).

Smooth, full speed keyboard action, with auto repeat (with controllable speed).

High speed, machine code - controlled printing.

Full Right Justification.

Selectable page numbering (with controllable page length).

Search, Replace, Move, Insert, and Delete commands.

Selectable EXPANDED PRINT.

16K to start, holds 8000 characters of text (equal to 6 double spaced pages); easily expandable to 48K memory.

1234567890ABCDEFGHIJKLMNPOQRSTUVWXYZab  
cdefghijklmnopqrstuvwxyz\$()"-+=;?/\*<>  
,.!'@:~!+!+ | [ ] ^ \_ ` ~ #

Sample screen:

WORD SINC II+ IS A SMOOTH, FULL FEATURE WORD PROCESSOR THAT WILL TRANSFORM YOUR COMPUTER (ZX81, T/S 1000, OR T/S1500) AND PRINTER (ZX OR TIMEX 2040 INTO A REAL WORD PROCESSING SYSTEM. WORD SINC II+ OFFERS: 42 CHARACTERS PER LINE ON THE STANDARD TIMEX PRINTER. FULL CHARACTER SET, WITH ALL PUNCTUATION (SEE CHART). SMOOTH, FULL SPEED KEYBOARD ACTION, WITH AUTO REPEAT (WITH CONTROLLABLE SPEED).

#### SPECIAL CHARACTERS (SHIFTED)

1	2	3	4	5	6	7	8
!	~	+	!	←	↓	↑	→
9	U	E	F	T	Y		
		[	]	%	\		
A	S	D	F	G	H		
@			π	&	#		

To order WORD SINC II+ Fill out coupon below, and enclose your check or money order (no cash please).

@ \$20.00 each tape regular . . . . .

### SPECIAL CLUB PRICE

\$13.00 each tape, plus \$1 P/H first tape, \$.75 each additional with full documentation.

Allow three weeks for delivery.

FULL SATISFACTION GUARANTEED

(C) P. Hargrave

Distributed in U.S. by:

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P.O. BOX 452  
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301-922-0767 after 6 P.M.

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PLEASE MAIL ME \_\_\_\_\_ TAPES OF WSII+ AT THE CLUB SPECIAL OF \$13.00 PER TAPE (REG \$20)

PLUS POST/HANDL. (SEE ABOVE) (MARYLAND RESIDENTS ADD 65¢ SALES TAX EACH TAPE).

NAME \_\_\_\_\_

TOTAL FOR TAPES \$ \_\_\_\_\_.

ADDRESS \_\_\_\_\_

POST/HAND. \_\_\_\_\_.

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

SALES TAX (MD.) \_\_\_\_\_.

TELEPHONE DAY: \_\_\_\_\_ EVE. \_\_\_\_\_

TOTAL ENCLOSED \$ \_\_\_\_\_.



Capitol Area Times/Sinclair Users' Group  
P.O. Box 725  
Bladensburg, MD 20710

Name \_\_\_\_\_  
Address \_\_\_\_\_  
Phone Home \_\_\_\_\_ Office \_\_\_\_\_ ZIP \_\_\_\_\_  
Memberships - \$10.00 (family/individual); make checks payable to C.A.T.  
If family membership, please list family members participating: \_\_\_\_\_  
Occupation \_\_\_\_\_  
Ham Radio call sign \_\_\_\_\_  
Equipment  
ZX 80 \_\_\_\_\_ disk size \_\_\_\_\_  
EA 80 \_\_\_\_\_ full keyboard \_\_\_\_\_  
ZX 81 \_\_\_\_\_ Printer \_\_\_\_\_  
TS 1000 \_\_\_\_\_ type \_\_\_\_\_  
TS 2000 \_\_\_\_\_ other interface \_\_\_\_\_  
Special interest use for computer: ie, games, ham radio interface, business, other, etc. \_\_\_\_\_  
Languages: Basic \_\_\_\_\_ Other \_\_\_\_\_ Machine \_\_\_\_\_  
No. of years computer experience \_\_\_\_\_  
What committees would you like to serve on? \_\_\_\_\_  
Comments: \_\_\_\_\_



USER-FRIENDLY COMPUTER.

\*\*\*\*\* NEW PRODUCTS \*\*\*\*\* NEW PRODUCTS \*\*\*\*\*

## COMPCOOLER



End overheating problems with this small power supply-computer interface unit. COMPCOOLER makes your computer run cool by reducing the voltage applied to your computer 9V DC jack. No hardware changes or computer modifications are required. Simply plugs between your computer and your power supply. For up to 700 ma. current requirements--adequate for your TS1000/15000 or ZX81, plus your TS1015 or Sinclair 16K RAM PAC, plus your TS2040 printer. (Not for use with the Sinclair ZX printer!)

\$7.95 including postage

**G. RUSSELL — ELECTRONICS** 


RD 1 Box 539-T, Centre Hall, PA 16828  
814-364-1325 MasterCard/Visa 10am-8pm, Check/MO

## SPEECH RECOGNITION SYSTEM



Train your computer to obey your voice commands! With this experimental package, up to 8 words may be programmed for recognition. Works like a verbal INKEY\$ function. No hardware changes or computer modifications are required. The battery powered SRS unit simply plugs into your computer EAR jack. Package consists of a) hand-held hardware unit in a black plastic case b) cassette tape with both demonstration and utility programs c) documentation. Assembled \$34.95, KIT \$29.95 post paid Batteries not included.

*ready NOV 15, 1983*

**G. RUSSELL — ELECTRONICS** 

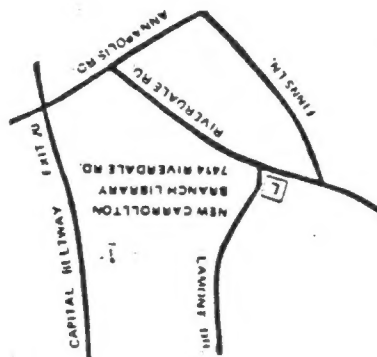
RD 1 Box 539-T, Centre Hall, PA 16828  
814-364-1325 MasterCard/Visa 10am-8pm, Check/MO  
FREE information and list of utilities on request.

MATERIAL

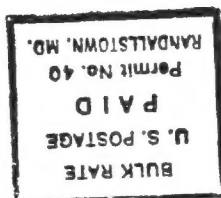
DATED

IF YOU ARE NOT A MEMBER OF CATS, THIS IS THE ONLY ISSUE YOU WILL RECEIVE  
CUES = \$10 per year, per family.

Next CATS Meeting \*\* 2PM \*\*\*\*\*  
Saturday, November 12, 1983  
New Carrollton Public Library  
7114 Riverdale Rd., New Carrollton, MD



CATS Newsletter  
P.O. Box 725  
Bladensburg, MD 20710



The mailing address of the Capitol Area Timex/Sinclair User's Group is:

Capitol Area Timex/Sinclair User's Group  
P.O. Box 725  
Bladensburg, MD 20710

CATS is a non-profit special interest organization dedicated to serving the interests of those who own, use, or are interested in learning more about the Timex/Sinclair family of personal computers.

The official contact person for CATS is Jim Wallace:  
(301) 699-8712

Meetings are held on the second Saturday of each month at 2 p.m. in the large meeting room of the New Carrollton Branch Public Library.

Submissions for this publication are eagerly solicited. Publication of material does not transfer rights from the author; in fact, it may establish priority.

Submissions may be articles on applications, programming techniques, hardware, reviews, or anything else you can imagine. Letters and Unclassified ads (free to members, \$1.00 otherwise) will be printed. Pertinent articles from other publications will also be considered.

I would prefer material to be typed, single spaced, in 3 1/4" columns--but don't break your back--the Xerox doesn't really care.

#### Ham Radio Network Information

QZX Net ----- Wednesdays, 9p.m. local time; 14.345 MHz  
NV4F NCS  
Eastern Regional Sinclair Net -- Sundays, 1600 Z; 7.245 MHz  
KQ2F NCS